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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/526,856	03/03/2005	Jaime Prat Urreiztieta	G80-032US	5421
21706	7590	08/09/2007		
NOTARO AND MICHALOS 100 DUTCH HILL ROAD SUITE 110 ORANGEBURG, NY 10962-2100			EXAMINER LIN, KUANG Y	
			ART UNIT	PAPER NUMBER
			1725	
			MAIL DATE	DELIVERY MODE
			08/09/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/526,856	<b>Applicant(s)</b> PRAT URREIZTIETA, JAIME	
	<b>Examiner</b> Kuang Y. Lin	<b>Art Unit</b> 1725	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 03 August 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,360,808 to Twardowska et al. and further in view of WO 00/73236 to Skerdi (or the corresponding US 6,972,059) and US 3,815,665 to Baur.

Twardowska et al. substantially shows the invention as claimed except that their exothermic compositions contain fluoride and that they do not show to the configuration of the sleeve. However, WO '236 shows that it is desirable to use a fluoride-free exothermic composition for forming feeder due to environmental and process-engineering reasons. The composition contains aluminum and magnesium as fuel. It would have been obvious to use the exothermic composition of Twardowska et al. free of fluoride and containing aluminum and magnesium as fuel in view of WO '236. (Fluoride functions as a catalyst (see Norton, col. 3, line 36+ and Takashima, col. 4, line 38+. The additional use of magnesium as fuel in WO' 236 is to act as igniting primer (see Montgomery, col. I, line 24+) to compensate the function of fluoride). Further, Baur shows that it is conventional to form the exothermic sleeve as a single piece having internal double chamfer at the bottom portion of the sleeve. The provision of internal double chamfer facilitates knock-off or removal of the riser waste metal (see, for example, col. 4, lines 46+) after or possibly even during shake out from the mold

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It would have been obvious to form the sleeve of the primary references with the configuration of Baur in view of the advantage.

3. Claims 1-12 are also rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,360,808 to Twardowska et al. and further in view of WO 00/73236 to Skerdi (or the corresponding US 6,972,059) and DE 31 13 229.

Twardowska et al. substantially shows the invention as claimed except that their exothermic compositions contain fluoride and that they do not show to form the sleeve as a single piece. However, WO '236 shows that it is desirable to use a fluoride-free exothermic composition for forming feeder due to environmental and process engineering reasons. The composition contains aluminum and magnesium as fuel. It would have been obvious to use the exothermic composition of Twardowska et al. free of fluoride and containing aluminum and magnesium as fuel in view of WO '236. (Fluoride functions as a catalyst (see Norton, col. 3, line 36+ and Takashima, col. 4, line 38+. The additional use of magnesium as fuel in WO' 236 is to act as igniting primer (see Montgomery, col. I, line 24+) to compensate the function of fluoride). Further, DE '229 shows that it is conventional to form the exothermic sleeve as a single piece having internal double chamfer at the bottom portion of the sleeve. The provision of internal double chamfer facilitates knock-off or removal of the riser waste metal in the subsequent processing step. It would have been obvious to form the sleeve of Twardowska et al. with the configuration of DE '229 in view of the advantage.

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4. Applicant's arguments filed August 3, 2007 have been fully considered but they are not persuasive.

a. Applicant stated in page 5 of the response that US '850 to Fernandez does not disclose a fluoride-free exothermic composition. Since this reference has been removed as a reference for the rejection. The argument is moot.

b. Applicant in page 9 of the response stated that US '808 to Twardowska et al. does not disclose a fluoride-free exothermic composition and the double chamfer in the inner wall of the sleeve. However, WO '236 to Skerdi and US '665 to Baur as well as DE '229, respectively, shows these features to be conventional. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

c. Applicant further stated in page 5 of the response that prior art does not show to form the chamfer from a mold and two cores. However, the only way to form the double chamfer structure of Baur in the cold-box forming process of Twardowska et al. is using two cores such that the cores can be removed from the formed sleeve. The core cannot be separated from the sleeve having doubled chamfer at the bottom portion if a single core were used in the cold-box forming process.

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d. Applicant stated in page 7 of the response that US '665 to Baur discloses a refractory sleeve, not an exothermic sleeve, and the corresponding technologies and problems involved with fabricating refractory sleeves are substantially different. However, applicant failed to set forth in what way the corresponding technologies and the problem are different. The Baur cited hereinabove is simply to show that it is known to form a sleeve as a single piece having double chamfer at its bottom portion. The sleeve structure of Baur has the advantage in that it is formed in a single step as opposed to the conventional way of forming a sleeve and a break core separately as shown in Fig. 1C of the instant drawing.

e. Applicant in page 7 of the response stated that in order to use the feeder shown in DE '229, a fluoride-free biscuit (breaker core) has to be used. However, none of the prior art references applied for the rejections supra mentions the use of breaker core in their processes.

f. Applicant in page 8 of the response stated that the reason of using fluoride-free exothermic composition in WO '236 is different from that of instant process. Notwithstanding the difference, the scope of the claim does not define over the combined teachings of the prior art references.

g. With respect to the provision of plug in the other opening as claimed, Baur also provides a cover for covering the top opening of the sleeve. The function of the cover is the same as that of claimed plug. Thus, the claimed plug is deemed

to be an obvious variation of sleeve structure of Baur. Further, in DE '229 the top cover 18 also performs the same function as the plug of instant application does.

5. All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kuang Y. Lin whose telephone number is 571-272-1179. The examiner can normally be reached on Monday-Friday, 10:00-6:30,.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jonathan J. Johnson can be reached on 571-272-1177. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kuang Y. Lin/  
Primary Examiner  
Art Unit 1725

8-7-07